



# Instruction manual



**High-capacity boiling kettle electric  
indirect 200 l  
BIQ 90/100 200 E**

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## 1. DECLARATION OF CONFORMITY

Decree of the Ministry of Health of the Czech Republic no. 38/2001 Coll. of 19 January 2001 Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation of the European Parliament and Council Regulation (EC) no. 1935/2004 of 27 October 2004

The products meet the requirements of §26 of Act No.258/2000 as amended. The products meet the requirements of RoHS Directive 2015/863/EU, 10/2011, 517/2014, 2015/1094, 2015/1095.

Attention, the manufacturer gives up any responsibility in case of direct and indirect damage that is related to poor installation, incorrect intervention or adjustments, insufficient maintenance, incorrect use and which are eventually caused by other causes than the points referred to in the conditions of sale. This appliance is intended only for professional use and must be operated by qualified persons. Parts that have been secured by the manufacturer or authorized worker after the setting rebuild.

## 2. TECHNICAL DATA

The label with technical data is located on the side or back panel of the device. Please read the wiring diagram and all the following information in the attached manual before installation.

| Net Width [mm]     | Net Depth [mm]   | Net Height [mm]                      | Net Weight [kg]   | Power electric [kW] |
|--------------------|------------------|--------------------------------------|-------------------|---------------------|
| 1000               | 900              | 900                                  | 188.00            | 24.000              |
| Loading            | Basin volume [l] | Volume capacity of the container [l] | Usable volume [l] |                     |
| 400 V / 3N - 50 Hz | 200              | 200.00                               | 183               |                     |

## 3. LOCATION ELECTRIC

For the correct operation and placement of the appliance, it is necessary to observe the following all prescribed standards for the given market. Unpack the device and check that the device has not been damaged during transport. Place the device on a horizontal surface (maximum unevenness up to 2°). Small unevenness can be leveled with adjustable feet. If the device will be placed in such a way that it will be in contact with the walls of the furniture, these must withstand a temperature of up to 60°C. Installation, adjustment, commissioning must be performed by a qualified person who is authorized to perform such operations, according to applicable standards. The device can be installed separately or in series with devices of our production. A minimum distance of 10 cm from flammable materials must be observed. In this case, it is necessary to secure the appropriate modifications to ensure the thermal insulation of the combustible parts. The appliance must only be installed on a non-flammable surface or against a non-flammable wall. **Parts of the appliance provided by the manufacturer. or his representative, the worker performing the installation may not rebuild the product.**

## 4. SAFETY MEASURES FOR FIRE PROTECTION

- the appliance may only be operated by adults
- the appliance may be used safely in accordance with applicable market standards:

Fire protection in spaces with special risk or danger

Protection against the effects of heat

- the appliance must be placed so that it stands or hangs firmly on a non-combustible surface

Objects of flammable substances must not be placed on the appliance at a distance less than a safe distance from it (the smallest distance between the appliance and flammable substances is 10 cm).

Table: degree of flammability of building materials included in st. flammability of substances and products

| Degree of flammability   | Building materials                                          |
|--------------------------|-------------------------------------------------------------|
| A - non-flammable        | granite, sandstone, concrete, brick, ceramic tiles, plaster |
| B - Not easily flammable | Acumin, Heraclitus, Lihnos, Itaver                          |

| Degree of flammability    | Building materials                                 |
|---------------------------|----------------------------------------------------|
| C1 - highly flammable     | wood, hardwood, plywood, hard paper, umakart       |
| C2 - moderately flammable | chipboards, solodur, cork boards, rubber, flooring |
| C3 - Highly flammable     | wood fiber boards, polystyrene, polyurethane, PVC  |

- information on the degree of flammability of common building materials is given in the table above. Appliances must be installed in a safe manner. During installation, the relevant design, safety and hygiene regulations must also be respected:
- fire safety of local appliances and heat sources
- fire protection in areas with special risk or danger
- protection against the effects of heat

## 5. INSTALLATION

**Important:** The manufacturer does not provide any warranty for defects arising as a result of incorrect use, failure to follow the instructions contained in the attached user manual and mishandling of appliances. Installation, modification and repair of appliances for large kitchens, as well as their dismantling due to possible damage to the gas supply, can only be carried out on the basis of a maintenance contract, this contract can be concluded with an authorized dealer, while technical regulations and standards and regulations must be observed regarding installation, electrical supply, gas connection and work safety. Technical instructions for installation and adjustment, for use by specialized technicians ONLY. The instructions that follow refer to a technician qualified for installation to carry out all operations in the most correct manner and according to the applicable standards. Any activity related to regulation etc. must only be performed with the device disconnected from the network. If it is necessary to keep the appliance under voltage, the utmost care must be taken. The type of appliance for extraction is declared on the nameplate, it is an A1 appliance.

## 6. WATER CONNECTION

Water connection is done using G1/2 threaded hoses. The water supply must be fitted with separate closures that are freely accessible and within reach of the device. The device includes return valves. The water for filling the duplicator space must be softened - a maximum of 5 ° the French scale of water hardness. The water pressure must be in the range of 50-300 kPa.

## 7. CONNECTING THE ELECTRICAL CABLE TO THE NETWORK

Installation of the electrical supply - this supply must be separately secured. Ato with the corresponding circuit breaker of rated current depending on the power input of the installed device. Check the power consumption of the device on the production label on the back panel (or side) of the device. The connected ground wire must be longer than the other wires. Connect the device directly to the network, it is necessary to insert a switch between the device and the device with a minimum distance of 3 mm between the individual contacts, which corresponds to the applicable standards and load. The earth supply (yellow-green) must not be interrupted by this switch. Connect the device to the mains if the socket has adequate protection. In any case, the supply cable must be located so that it does not reach a temperature of 50 degrees higher than the environment at any point. Before the appliance is connected to the network, it is necessary to first make sure that:

- the supply circuit breaker and the internal distribution can withstand the current load of the appliance (see matrix label)
- the distribution board is equipped with effective grounding according to the standards of the relevant market and the conditions given by law
- the socket or switch in the supply is easily accessible from the appliance
- the electrical supply to the device must be made of oil-resistant material

**We disclaim any responsibility in the event that these standards are not respected and in the event of**

**a violation of the above principles. Before first use, you must clean the device, see chapter "cleaning and maintenance". The appliance must be grounded using a screw with a grounding mark.**

- Do not insert the plug of the power supply into the electrical outlet. sockets and do not pull out the zel. sockets with wet hands and pulling on the power cord!
- Do not use extension cords or multiple sockets.
- **The mains connection point must have a maximum of the following impedance:  $Z_{MAX} = 0.042 + j 0.026 \Omega$  for the phase conductors and  $0.028 + j 0.017 \Omega$  for the neutral conductor.**

## Instructions for use

### Power selection knob

The knob (1) switches the appliance off/on. The switch has four positions:

Position 0 - the appliance is switched off.

Full power - all heating coils of the heating system are used during heating. This position is found twice on the knob.

Half power - Part of the heating system coils are used during heating.

### Controller knob

Both full and half power can be further fine-tuned using the control knob (2) when:

Position 0 - Heating system off.

Positions 1 to 7 - regulation between 10 and 70% of full or half power according to the setting of the knob (1). The regulation is carried out by cycling the heating elements at different intervals.

MAX position - 100% of full or half power according to the setting of the knob (1). The heating elements heat continuously (except when switched off by the preset due to reaching the working pressure).

### Green indicator light

The green indicator light (3) indicates that the device is switched on. The light turns green when the power switch knob is switched to the full or half position. When the green indicator light is on, the automatic intermediate water supply is activated at the same time (for AWF version) and water starts to flow in case of low water level.

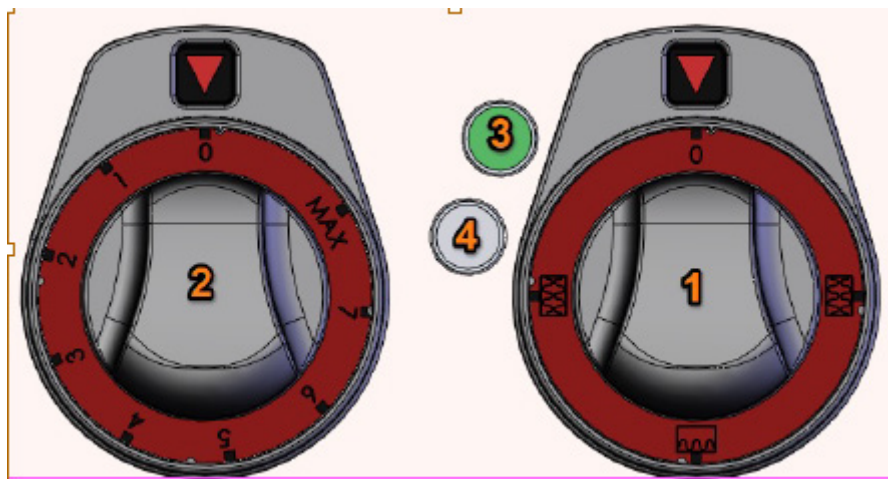
### White (orange) indicator light

The white light (4) indicates the status of the heating system. The light is always orange when the device is heating.

### Regulation

To set the full power, switch the power switch knob (1) to the full power position and at the same time switch the fine control knob (2) to the MAX position. Full power is used to bring food to a boil as quickly as possible.

To maintain the food temperature at approximately 95 °C (recommended temperature for drawing broth) - first bring the food to a boil and then pull the power switch knob (1) to half power and at the same time the fine control knob (2) to level 2 (level may vary depending on the amount of food being cooked).



### Filling the duplicator

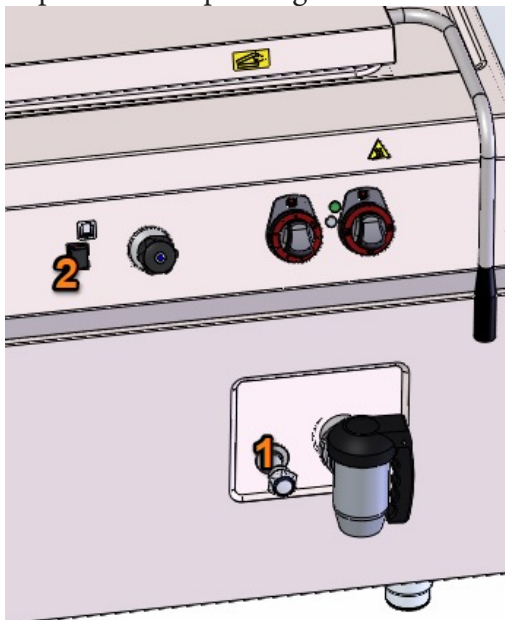
#### Semi-automatic (basic version)

The basic version of the device is equipped with semi-automatic duplicator filling. An overflow cock (1) comes out of the front of the duplicator intermediate casing. A rocker switch for filling (2) is located on the front panel. For correct operation, the water level in the intermediate tank must be checked and topped up daily before starting the machine.

The procedure for refilling the intermediate water tank is as follows:

Open the overflow tap (1), if no water is coming out, press and hold the cradle fill switch (2). Hold the switch until a thin stream of water starts to flow out of the overflow tap. At this point, release the cradle switch and close the overflow tap.

Note: The semi-automatic filling system is equipped with a thermostat to prevent water from filling the hot duplicator. The priming is inactive when the temperature is above 60°C.



#### Automatic (AWF version)

The AWF version boilers are equipped with an automatic duplicator filling system. In this version, the level monitoring and refilling is carried out automatically, even during operation.

The automatic filling system is active whenever the power switch knob is in the , or .

The blue indicator light (1) is used to signal the operation of the automatic filling system. It lights up when the water is being filled.

For a boiler with automatic watering, the appliance must be connected to soft or softened water.

#### Filling water for cooking

#### Water filling handle

The handle (3) is rotatable by 90° and care must be taken to prevent it from colliding with the boiler lid (1) when opening and closing the lid. There is a hole in the worktop below the filling arm for draining water from the top plate moulding area (5).

#### Water filler tap

The tap (2) is located on the front panel near the controls. Turning the tap releases cold water into the filling arm (3).

#### Level lines in the vessel

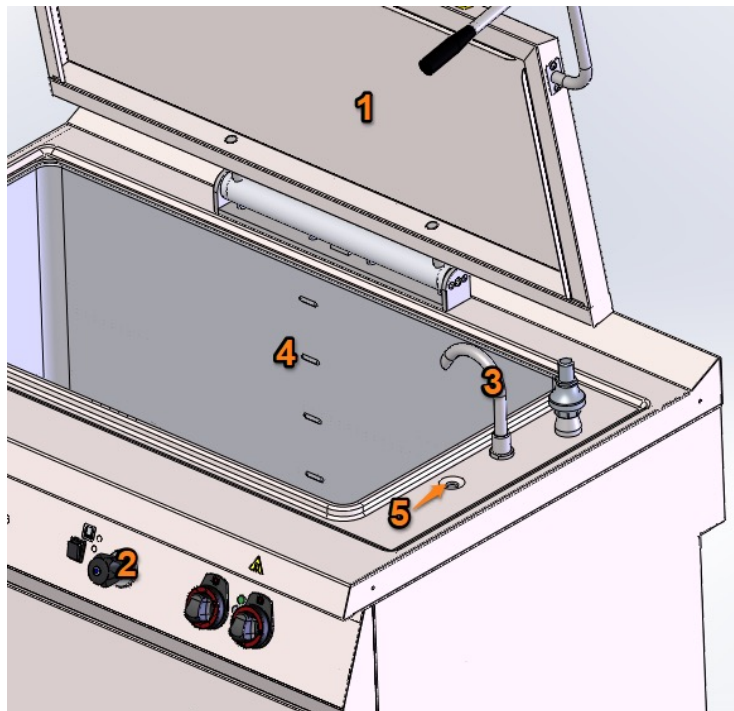
The level lines (4) are moulded on the back of the container and indicate the volume of food in the container. The lines indicate the volume:

| Line (order from the bottom) | BIQ 90/100-200 E (AWF) [ l ] | BIQ 90/140-300 E (AWF) [ l ] |
|------------------------------|------------------------------|------------------------------|
| Line 1                       | 60                           | 70                           |
| Line 2                       | 120                          | 140                          |
| Line 3                       | 183                          | 210                          |
| Line 4                       | -                            | 280                          |

#### Filling water into the container

Raise the boiler lid (1) to the upper position. Turn the water filling arm (3) towards the vessel. Turn the filling tap (2) and fill the required amount of water (it is necessary to check the filling to avoid overflow), then close the tap (2). Turn the filling arm (3) away from the container so that it does not collide with the lid (1). Close the lid (1).

Note: Filling the full volume of water takes approximately 20 min for 90/100-200 boilers and 30 min for 90/140-300 boilers, depending on the water pressure in the water line.



Before starting to boil, it is first necessary to check the water level in the duplicator by opening the overflow tap. If no water is coming out of the duplicator, it is necessary to let the water out by holding the rocker switch. When water starts to flow, close the overflow tap. Note: For AWF versions, skip this step.

Operate the unit by switching the power selector knob to the full, or half power position. In these positions, the green light will illuminate to indicate the appliance is switched on (the boiler is not yet heating). Note: If the boiler is in AWF version, the intermediate tank priming will be activated at the same time (and if the level in the duplicator is not reached, the water will also be primed). Turning the controller knob to positions 1 - MAX will switch on the electric heating system. The heating status is indicated by an orange indicator light.

For the fastest boil-up, the lid must be closed and the full power + regulator set to MAX. Even at maximum power, the pressure control is still active via the pressure regulator. Therefore, cycling of the heater may occur when the operating pressure is reached.

Once the desired temperature is reached, the heating output should be adjusted by pulling down to half power or setting the control to a value lower than MAX, which will extend the life of the switching elements.

- For the function and life of the heating elements, it is essential that the correct water level is maintained in the duplicator intermediate casing, thus keeping the heating elements submerged at all times.
- If the pressure switch fails and the pressure exceeds 0.5 bar +10%, the safety valve located on the top plate will open and release the steam.
- Heat transfer is most effective when the full capacity of the cooking vessel is used, or at most to the next furrow (210 l for the 90/140-300 and 120 l for the 90/100-200). At lower fill levels, heat loss increases and cooking performance is reduced.
- To achieve the most efficient boiling of food, the lid must be closed.

#### Working pressure

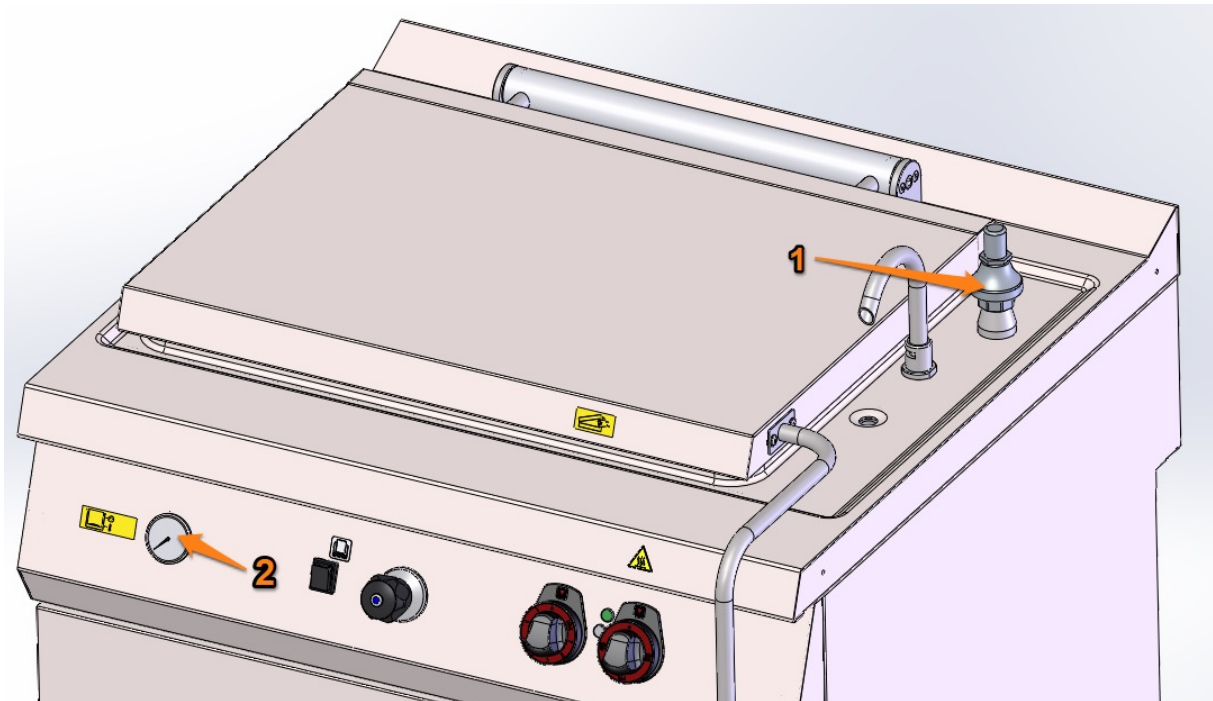
The boiler is equipped with a pressure switch which limits the working pressure to 0.45 bar +/- 10%. The pressure switch is superior to all control and will shut down the heating elements whenever this pressure should be exceeded. Heating is restored after the pressure drops.

The boiler is also equipped with a safety relief valve (1), calibrated to a pressure of 0.5 bar + 10%. In the event of a failure of the pressure relief valve, the safety valve will release steam and prevent dangerous pressure

values.

The pressure readings in the duplicator can be monitored on the pressure gauge (2) located on the front panel of the unit.

Since the water in the duplicator is heated at the same time as the water in the container (food), steam formation and pressure build-up in the duplicator does not actually occur until the food in the container is approximately 80 °C.

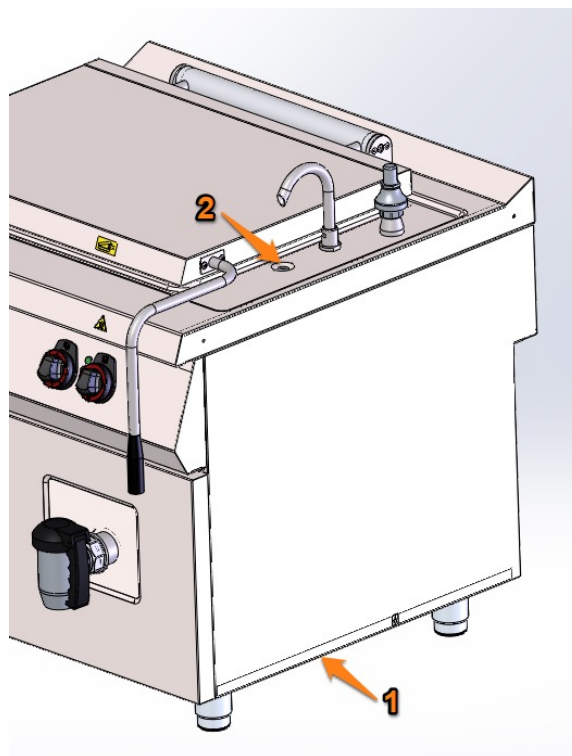


### Duplicator venting

The boiler is equipped with an automatic venting valve. When the boiling process starts, the excess air is gradually expelled by the steam. The moment sufficient warm air (and steam) starts to escape through the vent valve, it is automatically closed. Only then does the pressure in the duplicator begin to rise. There is no need for the operator to worry about the venting.

After the boiler has finished cooking, the vent valve opens again as the boiler cools down, letting air into the duplicator and preventing a vacuum from building up.

Any condensate that may leak from the vent valve is discharged into the drain pipe (1) together with the worktop drain (2).



| Glitch                                                                  | Possible cause                                 | Recommended solution                                                                                  |
|-------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| The boiler takes a long time to heat up                                 | Open lid                                       | Always cook with the lid closed                                                                       |
|                                                                         | Cooking too little food                        | Cook larger volumes - small quantities are not effective                                              |
|                                                                         | The duplicator is overcrowded                  | Drain water from the duplicator to the correct level                                                  |
| (basic version) water cannot be filled into the duplicator              | Water supply (WD) is closed                    | Secure the water supply                                                                               |
|                                                                         | The boiler is too hot                          | Wait - the thermostat prevents the water from filling at temperatures above 60 °C                     |
| (AWF version) no water is pumped into the duplicator                    | Water supply (WD) is closed                    | Secure the water supply                                                                               |
|                                                                         | The filling solenoid is not working            | Call for service - replacement required                                                               |
| (AWF version) water gushes from the waste pipe or from the safety valve | Duplicator overflow occurred                   | Switch off the equipment and call for service - level sensors must be cleaned                         |
|                                                                         |                                                | Switch off the device and call for service - it is necessary to adjust the sensitivity of the sensors |
| (AWF version) the red light is on. Heater function blocked              | Boiling of water due to non-functional filling | Check the water supply (WD)                                                                           |
|                                                                         |                                                | Call for service - filling system failure                                                             |

|                                         |                                                     |                                                                                |
|-----------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------|
| No pressure builds up in the duplicator | The duplicator isn't hot yet                        | Wait - the pressure only starts to rise at a food temperature of approx. 80 °C |
|                                         | Defective / damaged vent valve                      | Call for service - replacement required                                        |
|                                         | Crack in the duplicator                             | Call for service - repair required                                             |
| Safety valve releases steam             | Too high pressure - non-functioning pressure switch | Call for service - replacement required                                        |

## 8. CLEANING AND MAINTENANCE

It is recommended to have the device checked with a specialist service at least once a year. All the interventions in the device can only be carried out by a qualified person who has the authorization to do so.

**CAUTION!** The device must not be cleaned with direct or pressure water. Clean the equipment daily. Daily maintenance extends the life and efficiency of the equipment. Always turn off the main inlet to the device. Wash the stainless steel parts with a damp cloth with a detergent without coarse particles and wipe dry. Do not use abrasive or corrosive cleaning agents. Attention! Before using the device, it is necessary to remove the protective foil from the entire surface, and then wash it well with water with detergent, and then wipe it with a damp cloth. **ALERT!** The warranty does not apply to all consumables subject to normal wear (rubber seals, bulbs, glass and plastic parts, etc.). The warranty also does not apply to the device if the installation is not carried out in accordance with the instructions - an authorized worker according to the corresponding standards and if the equipment was unprofessionally manipulated (interventions in the internal equipment, etc.) or were operated by unhappy staff and contrary to the instructions for use, further The warranty does not apply to damage by natural effects or other external intervention. **Required service organization 2 times a year. After the lifetime, the shipping packaging and equipment are submitted to the collection, according to the regulations on waste management and hazardous waste.**